

APR 07 2009

caps with prismatic sections and the Examiner concedes that the Pimlott patent fails to disclose that chamber is delimited by a conductive surface provided with holes coated with chemically inert porous diaphragm. The Examiner cites the Currey patent teaches the use of holes coated with chemically inert porous diaphragms as claimed. The Examiner contends that membrane cells and diaphragm cells "are interchangeable in the art" citing U.S. Patent No. 4,488,946.

Applicants vigorously traverse this ground of rejection since membrane cell technology is completely non-analogous to diaphragm cell technology. It is well known to everyone skilled in the art that chlor-alkali electrolysis can be subdivided into three distinct processes, namely:

1. membrane process
2. diaphragm process
3. mercury process

and that such processes make use of corresponding distinct cells, cannot only be inferred by the proceedings of any international conference on the subject (e.g. World Chlorine Council or Euro Chloro-sponsored congresses) but even easily found in Wikipedia

([http://en.wikipedia.org/wiki/Chloralkali\\_process](http://en.wikipedia.org/wiki/Chloralkali_process)). Moreover, a "cathodic finger structure" is known since at least forty years in the art to be a specific type of electrode (not a membrane electrolyser chamber!) made of a foraminous box or flattened tube having a porous diaphragm deposited thereon (see for instance US 3,899,408; US 3,617,461; US 3,910,827; US 3,945,909). US 4,628,596 (Currey et al), cited by the Examiner, also mentions "cathode fingers".

Applicants submit that claims of the present application are directed to a "cathodic finger structure" (which is equivalent to "cathode finger") of a diaphragm electrolytic cell. Pimlott et al

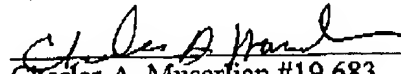
is neither directed to a cathodic finger structure nor to a structural element or component of a diaphragm electrolyser, therefore it cannot anticipate or render obvious the claims of the instant application which are directed to a "cathodic finger structure of diaphragm electrolytic cell". Currey et al is silent on the main characterizing feature of the instantly claimed finger structure (a reinforcing and electric current distributing internal element constituted by at least one sheet provided with projections housed in the hollow portion of the finger).

The technical problem of improving the current distribution over the surface of a cathode finger of a diaphragm electrolyzer is not addressed by Currey et al, whose purpose is to reduce the inter-electrode gap (which is a totally different problem cited on page 2 of the present specification. The solution to such technical problem consisting of inserting a conductive sheet of improved design inside such hollow portion of the finger is consequently neither mentioned nor remotely suggested by Currey et al.

The Morris et al patent referred to by the Examiner is directed to ion-exchange membrane cells and does not equate the same with diaphragm cells. The Examiner's attention is directed to lines 38 to 53 of column 1 of the Pimlott et al patent which discusses the difference between the two types of cells which clearly points out that one skilled in the art clearly knows the 2 types of cells are clearly patentably distinct and are not "interchangeable in the art" as the Examiner alleges. Therefore, withdrawal of this ground of rejection is requested.

In view of the above remarks, it is believed that the claims point out Applicants' patentable contribution. Therefore, favorable reconsideration of the application is requested.

Respectfully submitted,

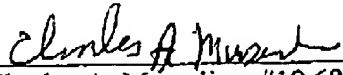


Charles A. Muserlian #19,683  
Attorney for Applicants  
Tel. 212 302 8989

CAM:mlp  
Enclosures

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Charles A. Muserlian #19,683

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